

II. CLAIM AMENDMENTS

1. (Original) A method of data packet numbering in packet-switched data transmission in connection with a handover, in which responsibility for a connection is transferred from a connection between a mobile station and a first wireless telecommunication network to a connection between said mobile station and a second wireless telecommunication network, in which first wireless telecommunication network a data packet number space available for data packet numbering is bigger than a data packet number space of the second wireless telecommunication network, the method comprising the steps of:

restricting data packet numbering in the first wireless telecommunication network such that numbers of the data packets of the first wireless telecommunication network do not exceed a maximum value of the data packet number space of the second wireless telecommunication network.

2. (Original) A method as claimed in claim 1, wherein telecommunication protocols of said first and second wireless telecommunication networks comprise a convergence protocol layer (PDCP, SNDCP) for adapting user data packets to convergence protocol packets and a link layer (RLC, LLC) for transmitting the convergence protocol packets (PDCP-PDU) as data units (RLC-PDU) and for acknowledging the transmission.

3. (Original) A method as claimed in claim 1, further comprising the step of restricting a number of transmitted unacknowledged data packets to substantially 255 data packets (PDCP-PDU).

4. (Original) A method as claimed in claim 3, further comprising the step of restricting the number of unacknowledged data packets to be placed to a buffer on the convergence protocol layer to 255 data packets.

5. (Original) A method as claimed in claim 3, further comprising the step of restricting the number of unacknowledged data packets transmitted on a link layer to 255 data packets.

6. (Original) A method as claimed in claim 5, further comprising the step of restricting, in response to the number of unacknowledged data packets transmitted on the link layer substantially being 255, a size of a transmitting window of the data units to be transmitted on the link layer to be so small so as not to enable the transmission of a whole data packet.

7. (Original) A method as claimed in claim 2, further comprising the step of restricting a size of a transmitting window of a protocol layer of an application-level, such as a TCP layer, above the PDCP layer to be 255 data packets.

8. (Original) A method as claimed in claim 1, further comprising the step of restricting the data packet number space used in the packet-switched data transmission between said mobile station and

said first wireless telecommunication network to correspond to the data packet number space of said second wireless telecommunication network.

9. (Previously Presented) A method as claimed in claim 8, further comprising the steps of utilizing a normal data packet number space in the packet-switched data transmission between said mobile station and said first wireless telecommunication network and restricting the data packet number space used in the packet-switched data transmission between said mobile station and said first wireless telecommunication network to correspond to the data packet number space of said second wireless telecommunication network, in response to said first telecommunication network and second telecommunication preparing for a handover.

10. (Previously Presented) A method as claimed in claim 4, further comprising the step of performing the restricting of data packet numbering and restricting of the number of transmitted unacknowledged data packets in response to a definition of a strength of a received signal, which is performed in the data transmission between said first telecommunication network and second telecommunication and a terminal, directing said first telecommunication network and second telecommunication network to prepare for a handover.

11. (Original) A method as claimed in claim 1, wherein the first telecommunication network comprises a UMTS network using a 16-bit

data packet number space and the second telecommunication network comprises a GPRS network using an 8-bit data packet number space.

12. (Original) A telecommunication system comprising a mobile station and a first and a second wireless telecommunication network, which are arranged in a packet-switched data transmission to transfer a responsibility for a connection (handover) from a connection between said mobile station and said first wireless telecommunication network to a connection between said mobile station and said second wireless telecommunication network, in which first wireless telecommunication network a data packet number space available for data packet numbering is bigger than a data packet number space of the second wireless telecommunication network, wherein in the first wireless telecommunication network data packet numbering is arranged to be restricted such that numbers of the data packets of the first wireless telecommunication network do not exceed a maximum value of the data packet number space of the second wireless telecommunication network.

13. (Original) A telecommunication system as claimed in claim 12, wherein the telecommunication protocols of said first and second wireless telecommunication networks comprise a convergence protocol layer (PDCP, SNDCP) for adapting user data packets to convergence protocol packets and a link layer (RLC, LLC) for transmitting the convergence protocol packets (PDCP-PDU) as data units (RLC-PDU) and for acknowledging a transmission.

14. (Original) A telecommunication system as claimed in claim 12, wherein the number of transmitted unacknowledged data packets is arranged to be restricted to substantially 255 data packets (PDCP-PDU).

15. (Original) A telecommunication system as claimed in claim 14, wherein the number of unacknowledged data packets to be placed to a buffer in the convergence protocol layer is arranged to be restricted to 255 data packets.

16. (Original) A telecommunication system as claimed in claim 14, wherein the number of unacknowledged data packets transmitted on a link layer is arranged to be restricted to 255 data packets.

17. (Original) A telecommunication system as claimed in claim 16, wherein in response to the number of unacknowledged data packets transmitted on the link layer substantially being 255, the size of a transmitting window of data units to be transmitted on the link layer is arranged to be restricted to be so small so as not to enable the transmission of a whole data packet.

18. (Original) A telecommunication system as claimed in claim 13, wherein the size of a transmitting window of a protocol layer of an application-level, such as a TCP layer, above a PDCP layer is restricted to be 255 data packets.

19. (Original) A telecommunication system as claimed in claim 12, wherein the data packet number space used in the packet-switched

data transmission between said mobile station and said first wireless telecommunication network is arranged to be restricted to correspond to the data packet number space of said second wireless telecommunication network.

20. (Previously Presented) A telecommunication system as claimed in claim 19, wherein a normal data packet number space is arranged to be utilized in the packet-switched data transmission between said mobile station and said first wireless telecommunication network and the data packet number space used in the packet-switched data transmission between said mobile station and said first wireless telecommunication network is arranged to be restricted to correspond to the data packet number space of said second wireless telecommunication network, in response to said first telecommunication network and second telecommunication network preparing for a handover.

21. (Previously Presented) A telecommunication system as claimed in claim 15, wherein the restricting of the number of transmitted unacknowledged data packets to substantially 255 data packets and restricting unacknowledged data packets to be placed to the buffer in the convergence protocol layer to 255 data packets is arranged to be performed in response to a definition of a strength of a received signal, which is performed in the data transmission between said first telecommunication network and second telecommunication network and said terminal, directing said telecommunication networks to prepare for a handover.

22. (Original) A telecommunication system as claimed in claim 12, wherein the first telecommunication network is a UMTS network using a 16-bit data packet number space and the second telecommunication network is a GPRS network using an 8-bit data packet number space.

23. (New) A terminal for a packet-switched telecommunication system, said terminal being arranged in a packet-switched data transmission to transfer a responsibility for a connection (handover) from a connection between said mobile station and a first wireless telecommunication network to a connection between said mobile station and a second wireless telecommunication, in which first wireless telecommunication network a data packet number space available for data packet numbering is bigger than a data packet number space of the second wireless telecommunication network, wherein the terminal is arranged to restrict data packet numbering of the data packets to be transmitted such that numbers of the data packets do not exceed a maximum value of the data packet number space of the second wireless telecommunication network.

24. (New) A terminal as claimed in claim 23, wherein the terminal is arranged to convert the data packet numbering of the data packets to be sent from the first wireless telecommunication network to correspond the data packet numbering of the second wireless telecommunication network.

25. (New) A terminal as claimed in claim 23, wherein the terminal is arranged to support the telecommunication protocols of said

first and second wireless telecommunication networks, said protocols comprising a convergence protocol layer (PDCP, SNDCP) for adapting user data packers to convergence protocol packets and a link later (RLC, LLC) for transmitting the convergence protocol packets (PDCP-PDU) as data units (RLC-PDU) and for acknowledging a transmission.

26. (New) A terminal as claimed in claim 23, wherein the terminal is arranged to restrict the number of transmitted unacknowledged data packets to substantially 255 data packets (PDCP-PDU).

27. (New) A terminal as claim in claim 25, wherein the terminal is arranged to restrict the number of unacknowledged data packets to be placed to a buffer in the convergence protocol layer to 255 data packets.

28. (New) A terminal as claimed in claim 25, wherein the terminal is arranged to restrict the number of unacknowledged data packets transmitted on a link layer is arranged to be restricted to 255 data packets.

29. (New) A terminal as claimed in claim 28, wherein the response to the number of unacknowledged data packets transmitted on the link layer substantially being 255, the terminal is arranged to restrict the size of a transmitting window of data units to be transmitted on the link layer to be so small so not to enable the transmission of a whole data packet.

30. (New) A terminal as claimed in claim 25, wherein the terminal is arranged to restrict the size of a transmitting window of a protocol layer of an application-level, such as a TCP layer, above a PDCP layer to be 255 data packets.

31. (New) A terminal as claimed in claim 23, wherein the terminal is arranged to restrict the data packet number space used in the packet-switched data transmission between said mobile station and said first wireless telecommunication network to correspond to the data packet number space of said second wireless telecommunication network.

32. (New) A terminal as claimed in claim 31, wherein

the terminal is arranged to utilize a normal data packet number space in the packet-switched data transmission between said mobile station and said first wireless telecommunication network; and

the terminal is arranged to restrict the data packet number space used in the packet-switched data transmission between said mobile station and said first wireless telecommunication network to correspond to the data packet number space of said second wireless telecommunication network, in response to said first telecommunication network and second telecommunication network preparing for a handover.

33. (New) A terminal as claimed in claim 27, wherein the terminal is arranged to perform the restricting of the number of

transmitted unacknowledged data packets to substantially 255 data packets and restricting unacknowledged data packets to be placed to the buffer in the convergence protocol layer to 255 data packets in response to a definition of a strength of a received signal, which is performed in the data transmission between said first telecommunication network and second telecommunication network and said terminal, directing said telecommunication networks to prepare for a handover.

34. (New) A terminal as claimed in claim 23, wherein the terminal is arranged to communicate with a UMTS network using a 16-bit data packet number space and with a GPRS network using an 18-bit data packet number space.

35. (New) A network element of a first wireless telecommunication system, said network element being arranged to control data packet numbering in a packet-switched data transmission connection between a mobile station and said first wireless telecommunication network, wherein

said network element is arranged, when a responsibility for a connection is transferred (handover) from a connection between said mobile station and said first wireless telecommunication network to a connection between said mobile station and a second wireless telecommunication network having smaller data packet number space available for data packet numbering than in the first wireless telecommunication network, to restrict data packet numbering of the data packets to be transmitted such that numbers of the data packets do not exceed a maximum value of the data

packet number space of the second wireless telecommunication network.

36. (New) A network element as claimed in claim 35, wherein the network element is arranged to convert the data packet numbering of the data packets to be sent from the first wireless telecommunication network to correspond the data packet numbering of the second wireless telecommunication network.

37. (New) A network element as claimed in claim 35, wherein the wireless telecommunication network of the network element comprises a convergence protocol layer (PDCP, SNDCP) for adapting user data packets to convergence protocol packets and a link layer (RLC, LLC) for transmitting the convergence protocol packets (PDCP-PDU) as data units (RLC-PDU) and for acknowledging a transmission.

38. (New) A network element as claimed in claim 35, wherein the network element is arranged to restrict the number of transmitted unacknowledged data packets to substantially 255 data packets (PDCP-PDU).

39. (New) A network element as claimed in claim 37, wherein the network element is arranged to restrict the number of unacknowledged data packets to be placed to a buffer in the convergence protocol layer to 255 data packets.

40. (New) A network element as claimed in claim 37, wherein the network element is arranged to restrict the number of unacknowledged data packets transmitted on a link layer is arranged to be restricted to 255 data packets.

41. (New) A network element as claimed in claim 40, wherein in response to the number of unacknowledged data packets transmitted on the link layer substantially being 255, the network element is arranged to restrict the size of a transmitted window of data units to be transmitted on the link layer to be so small so as not to enable the transmission of a whole data packet.

42. (New) A network element as claimed in claim 37, wherein the network element is arranged to restrict the size of a transmitting window of protocol layer of an application-level, such as a TCP layer, above a PDCP layer to be 255 data packets.

43. (New) A network element as claimed in claim 35, wherein the network element is arranged to restrict the data packet number space used in the packet-switched data transmission between said mobile station and said first wireless telecommunication network to correspond to the data packet number space of said second wireless telecommunication network.

44. (New) A network element as claimed in claim 43, wherein

the network element is arranged to control a normal data packet number space to be used in the packet-switched data

transmission between said mobile station and said first wireless telecommunication network; and

the network element is arranged to restrict the data packet number space used in the packet-switched data transmission between said mobile station and said first wireless telecommunication network to correspond to the data packet number space of said second wireless telecommunication network, in response to said first telecommunication network and second telecommunication network preparing for a handover.

45. (New) A network element as claimed in claim 39, wherein the network element is arranged to perform the restricting of the number of transmitted unacknowledged data packets to substantially 255 data packets and restricting unacknowledged data packets to be placed to the buffer in the convergence protocol layer to 255 data packets in response to a definition of a strength of a received signal, which is performed in the data transmission between said first telecommunication network and second telecommunication network and said terminal, directing said telecommunication networks to prepare for a handover.